CLAIMS

What is claimed:

1. A computer system comprising:

a frame;

a chassis inserted into the frame;

an electronic component on the chassis;

an evaporator block, having an evaporator block internal volume to which the heat from the electronic component is transferred;

a capillary wicking material in the internal volume, a fluid flowing into the internal volume being absorbed by the material, the heat evaporating the fluid so that the fluid leaves the internal volume; and

a thermal component mounted to the frame, heat transferring from the fluid to the thermal component after the fluid flows out of the evaporator block.

2. The computer system of claim 1 wherein a majority of the heat generated by the electronic component transfers to the thermal component.

3. The computer system of claim 1 wherein the thermal component is a frame component, further comprising:

a chassis component on the chassis, the heat transferring first to the chassis component and then from the chassis component to the frame component.

4. The computer system of claim 3 wherein the chassis component has a chassis component internal volume, the fluid flowing through the chassis component internal volume.

5. The computer system of claim 4 wherein the fluid condenses in the chassis component internal volume.

6. The computer system of claim 1 wherein the evaporator block has first and second opposing internal surfaces defining the evaporator block internal volume, the first internal surface being located between the electronic component and the second internal surface, the capillary wicking material having first and second opposed sides, the first side being located against the first internal surface and the second side being located distant from the second internal surface, so that a gap is defined between the second side and the second internal surface, the evaporator block outlet leading out of the gap.

7. The computer system of claim 3 wherein movement of the chassis out of the frame causes thermal disengagement of the chassis component from the frame component.

8. The computer system of claim 3 wherein the chassis component and the frame

component have surfaces contacting one another when the chassis is inserted into the frame.

9. The computer system of claim 8 wherein each surface has a profiled shape, the shapes of the surfaces complementarily fitting one another.

10. The computer system of claim 9 wherein at least one of the surfaces has a t least one portion at an angle between 0° and 20° relative to a direction in which the chassis is inserted into the frame.

11. The computer system of claim 10 wherein one of the surfaces has a tapered recessed profile and the other surface has a tapered raised profile.

12. The computer system of claim 1, further comprising:

a plurality of chassis inserted into the frame; and

a plurality of electronic components, each on a respective chassis, each generating heat when operated.

13. The computer system of claim 12, further comprising:

a plurality of evaporator blocks, each evaporator block being located against a respective electronic component and each evaporator block having an evaporator block internal volume, an evaporator block inlet into the evaporator block internal

volume, and an evaporator block outlet out of the evaporator block internal volume; and

a respective capillary wicking material in each evaporator block internal volume.

14. The computer system of claim 13, further comprising:

a plurality of thermal components mounted to the frame, heat generated by each respective electronic component transferring to a respective thermal component.

15. The computer system of claim 14 wherein the thermal components are separate components.

16. The computer system of claim 14, further comprising:

a fluid-channeling structure on the frame, the fluid-channeling structure having a fluid inlet and a fluid outlet, heat transferring from each of the thermal components to a fluid after the fluid enters through the fluid inlet and before the fluid exits out of the fluid outlet.

17. A computer system comprising:

a frame;

a chassis inserted into the frame;

an electronic component on the chassis, the electronic component generating heat when operated;

an evaporator block against the electronic component, the evaporator block having an evaporator block internal volume to which the heat is transferred, an evaporator block inlet into the evaporator block internal volume, and an evaporator block outlet out of the evaporator block internal volume;

a capillary wicking material in the evaporator block internal volume, a fluid flowing through the evaporator block inlet being absorbed by the capillary wicking material, the heat in the evaporator block internal volume evaporating the fluid so that the fluid leaves the evaporator block internal volume through the evaporator block outlet;

a chassis component mounted to the chassis, heat transferring from the fluid to the chassis component after the fluid flows out of the evaporator block outlet, whereafter the liquid returns through the evaporator block inlet into the evaporator block internal volume; and

a frame component mounted to the frame, the chassis component and the frame component having surfaces that mate when the chassis is inserted into the frame so that the heat can transfer from the chassis component through the surfaces to the frame component.

18. The computer system of claim 17 wherein a majority of heat gereated by the electronic component transfers to the frame component

19. The computer system of claim 18 wherein the electronic component generates at least 100W.

20. A method of operating a computer system, comprising:

inserting a chassis into a frame; and

operating an electronic component mounted to the chassis so that heat transfers from the electronic component to a capillary wicking material, a fluid in the capillary wicking material being evaporated by the heat and flowing away from the capillary wicking material, the heat transferring from the fluid to a thermal component on the frame, whereafter the fluid returns to the capillary wicking material.

21. The method of claim 20 wherein a majority of the heat generated by the electronic component transfers to the thermal component.

22. The method of claim 21 wherein the electronic component generates at least 100W.